

10 Gig Solutions



A 10 Gig solution for peace of mind.

GenSPEED® 6500

GenSpeed® 6500 Shielded is a 600 MHz Category 6 cable with individually shielded pairs for optimized isolation between pairs and immunity from external noise caused by power sum alien crosstalk (PSANEXT) in cable bundles. With 17 dB of PSANEXT margin guaranteed and positive power sum attenuation to crosstalk ratio (PSACR) beyond 500 MHz, no other UTP or shielded Category 6 cable comes close.

Designed to exceed the newly issued IEEE 802.3an 10GBASE-T and the TIA-568B.2-10 draft for Augmented Category 6 requirements

on PSANEXT, this cable is ideal for the bandwidth-intensive 10 Gigabit Ethernet.

In today's crowded data centers, mission-critical environments and with the extreme data requirements of businesses everywhere, a shielded 10 Gig solution is ideal for your needs today and in the future. When secure communication is a requirement, a shielded solution is the perfect choice to minimize radiation.

With guaranteed performance up to 600 MHz and individual shielded pairs, this cable is not only an ideal solution for 10 Gig, but also robust

enough to support multiple applications over a single cable, including digital networking and analog voice and video transmission. This GenSPEED 6500 Shielded solution is PanGen™ warranted.

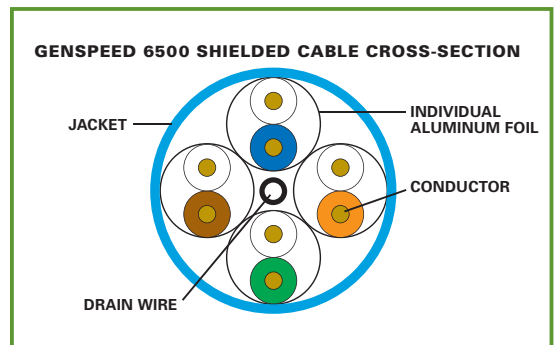
GenSpeed 6500 Shielded is constructed with four pairs of 23 AWG solid copper and individual aluminum tape shields. The cable also includes a common drain wire for easy termination, grounding and maximum EMI/RFI immunity. The overall cable diameter is below 0.300 inches, which is smaller than most 10 Gig UTP solutions available on the market today.

Applications

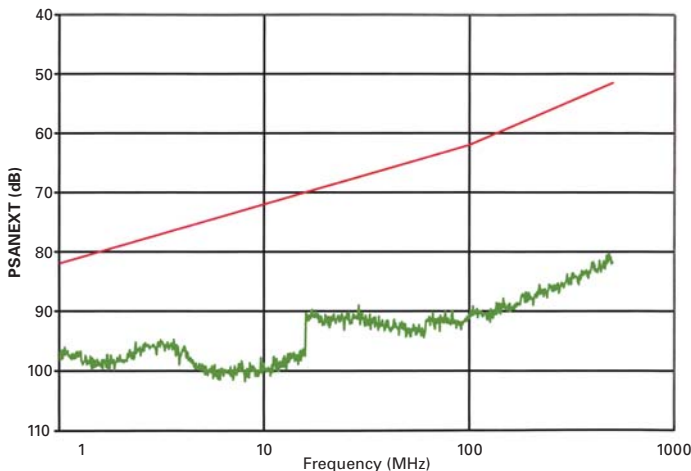
- IEEE 802.3an 10GBASE-T (10 Gigabit Ethernet)
- IEEE 802.3: 1000BASE-T (Gigabit Ethernet), 100BASE-TX, 10BASE-T
- ANSI/TIA/EIA-854: 1000BASE-TX
- 155 Mb/s, 1.2 Gb/s ATM
- ANSI X3.263: 100 Mb/s
- IEEE 802.3af DTE Power (POE)
- 4/16 Mb/s Token Ring
- Digital Video
- Broadband and Baseband Analog Video

Standard Compliances

- TIA/EIA-568B.2-10 Category 6A Draft
- ANSI/TIA/EIA-568.B.2-1 (Category 6)
- ANSI/TIA/EIA-862 (Building Automation)
- ISO/IEC 11801 Ed. 2.0 (Class E)
- ICEA S-102-700 (Category 6)
- UL Type CMR (UL 1666) & c(UL) CMG for Non-Plenum
- UL Type CMP (NFPA 262) & c(UL) CMP for Plenum
- UL 444

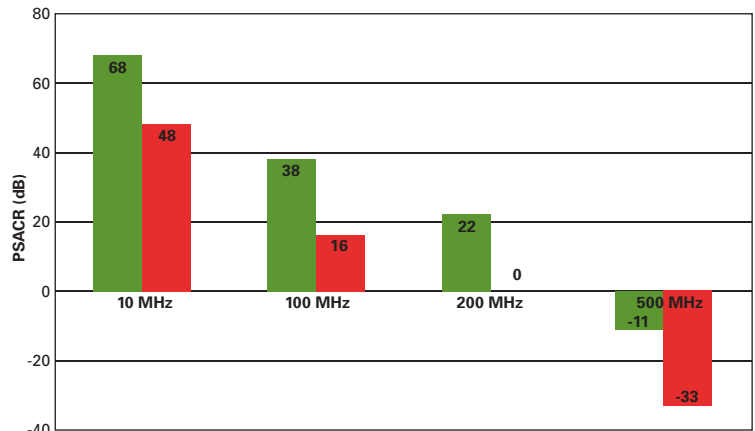


10Gig Channel Worst Case PSANEXT



— PanGen™ 10 Gig channel performance — TIA/EIA Cat 6A channel spec

10Gig Channel Worst Case PSACR



■ PanGen™ 10 Gig channel performance ■ TIA/EIA Cat 6A channel spec

ELECTRICAL PERFORMANCE

Frequency MHz	PSACR min.	ACR min.	Attenuation max.	PSNEXT min.	NEXT min.	PSELFEXT min.	ELFEXT min.	Return Loss min.	LCL/TCL min.	PSANEXT min.	PSAACRF min.
1	70.2	72.2	2.1	72.3	74.3	70.8	73.8	20.0	50.0	77.0	77.0
4	68.5	70.5	3.8	72.3	74.3	58.8	61.8	23.0	44.0	77.0	76.2
10	66.3	68.3	6.0	72.3	74.3	50.8	53.8	25.0	40.0	77.0	68.2
16	63.6	66.6	7.6	71.2	74.2	46.7	49.7	25.0	38.0	77.0	64.1
20	61.3	64.3	8.5	69.8	72.8	44.8	47.8	25.0	37.0	77.0	62.2
31.25	56.1	59.1	10.7	66.9	69.9	40.9	43.9	23.6	35.1	77.0	58.3
62.5	46.9	49.9	15.5	62.4	65.4	34.9	37.9	21.5	32.0	75.6	52.3
100	39.4	42.4	19.9	59.3	62.3	30.8	33.8	20.1	30.0	72.5	48.2
200	25.6	28.6	29.1	54.8	57.8	24.8	27.8	18.0	27.0	68.0	42.2
250	20.3	23.3	33.0	53.3	56.3	22.8	25.8	17.3	26.0	66.5	40.2
300	15.5	18.5	36.6	52.1	55.1	21.3	24.3	16.8	25.2	65.3	38.7
350	11.2	14.2	40.0	51.1	54.1	19.9	22.9	16.3	24.6	64.3	37.3
400	7.1	10.1	43.2	50.3	53.3	18.8	21.8	15.9	24.0	63.5	36.2
500	-	2.7	49.2	48.8	51.8	16.8	19.8	15.2	23.0	62.0	34.2
600	-	-	54.7	47.6	50.6	15.2	18.2	14.7	22.2	60.8	32.6

PART NUMBERS

Standard packaging: '1000' Spools

Jacket Color	Reel	
	CMR (Non-Plenum)	CMP (Plenum)
Blue	7133786	7131786
White	7133787	7131787
Yellow	7133788	7131788
Gray	7133789	7131789
Red	7133790	7131790
Orange	7133791	7131791
Green	7133792	7131792

ELECTRICAL CHARACTERISTICS

DC Resistance (max) Ohms/100m (328ft) @ 20°C	8.9
DC Resistance Unbalance (max) Individual Pair %	3.0
Delay Skew (max) ns/100m	35
Nom. Velocity of Propagation % Speed of Light	CMP: 78 CMR: 75
Characteristic Impedance Frequency (f):	1-600MHz Ohms 100±15
Input Impedance Frequency (f):	1-100MHz 100-200MHz 200-600MHz Ohms 100±15 100±22 100±32

PHYSICAL DATA

	CMR (Non-Plenum)	CMP (Plenum)
Nominal Cable Diameter (in)	0.310	0.290
Nominal Cable Weight (lbs/1000ft)	50	45

CONSTRUCTION

<p>Conductors</p> <ul style="list-style-type: none"> 23 AWG solid bare annealed copper <p>Insulation</p> <ul style="list-style-type: none"> Non-Plenum: Foamed Polyolefin Plenum: Foamed FEP O.D. = 0.055" 	<p>Color Code</p> <ul style="list-style-type: none"> Pair 1: Blue-White Pair 2: Orange-White Pair 3: Green-White Pair 4: Brown-White 	<p>Shield</p> <ul style="list-style-type: none"> Each pair is individually shielded with an aluminum foil 24 AWG drain wire <p>Jacket</p> <ul style="list-style-type: none"> Non-Plenum: Flame-Retardant PVC Plenum: Low-Smoke, Flexguard® Flame-Retardant PVC
--	---	--

GenSPEED® 6500



4 Tesseneer Drive
Highland Heights, Kentucky 41076-9753
Telephone: (800) 424-5666
(859) 572-8000
Email: info@generalcable.com
www.generalcable.com

590 Barmac Drive
North York, Ontario M9L 2X8
Telephone: (800) 561-0649
Fax: (800) 565-2529

GENERAL CABLE, FLEXGUARD, GEN SPEED and PANGEN are trademarks of General Cable Technologies Corporation.
©2006. General Cable Technologies Corporation.
Highland Heights, KY 41076
All rights reserved. Printed in USA.
Form No. DAT-0109-0906